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| 10/601,573 | 06/24/2003 | Seung-Jae Lee | 1293.1798 | 8257 |
| 21171 | 7590 | 10/25/2004 | EXAMINER | |
| STAAS & HALSEY LLP SUITE 700 1201 NEW YORK AVENUE, N.W. WASHINGTON, DC 20005 | | | COLILLA, DANIEL JAMES | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2854 | |

DATE MAILED: 10/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/601,573

Applicant(s)

LEE, SEUNG-JAE

Examiner

Daniel J. Colilla

Art Unit

2854

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. The indicated allowability of claim 5 is withdrawn in view of the newly discovered reference(s) to Samoto et al. (US 2003/0043248) and Tanaka et al. (US 5,515,094). Rejections based on the newly cited reference(s) follow.

Claim Objections

2. Claim 8 is objected to because of the following informalities: claim 8 does not appear to be a complete statement. Additionally, the language in claim 8 appears to be a double recitation of that which has already been recited in claim 1, specifically that the second interval is wider than the first interval. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3 and 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Tanaka et al. (US 5,515,094).

With respect to claim 1, Tanaka et al. discloses a paper guide including a plurality of first ribs 11 and a plurality of second guide ribs 15 such that the spacing between the second guide

Art Unit: 2854

ribs 15 is wider than the spacing between the first guide ribs 11. Furthermore, each of the second guide ribs is connected to a corresponding first guide rib as shown in Figure 4 of Tanaka et al. Additionally, Tanaka et al. discloses that the guide ribs 11 and 15 are in the printing region 8a (Tanaka et al., col. 4, lines 6-12). Figure 5 of Tanaka et al. shows that the first guide ribs 11 are located under a front-half swath of the printhead and therefore, in view of Figures 4 and 5 of Tanaka et al. at least part of the guide ribs 15 face a rear-half swath of the printhead.

With respect to claim 2, the guide ribs 15 are linearly connected to the guide ribs 11.

With respect to claim 3, there is at least one guide rib 11 positioned between the guide ribs 11 that are connected to the guide ribs 15.

With respect to claim 7, Tanaka et al. discloses paper guide with a first region including a plurality of first guide ribs and a second region comprising a plurality of second guide ribs 15 both sets of ribs having a flattening ability (Tanaka et al., col. 4, lines 6-12). Since Tanaka et al. discloses the same structure as recited in claim 7 the second guide ribs must also have a greater flattening ability than the first flattening ability.

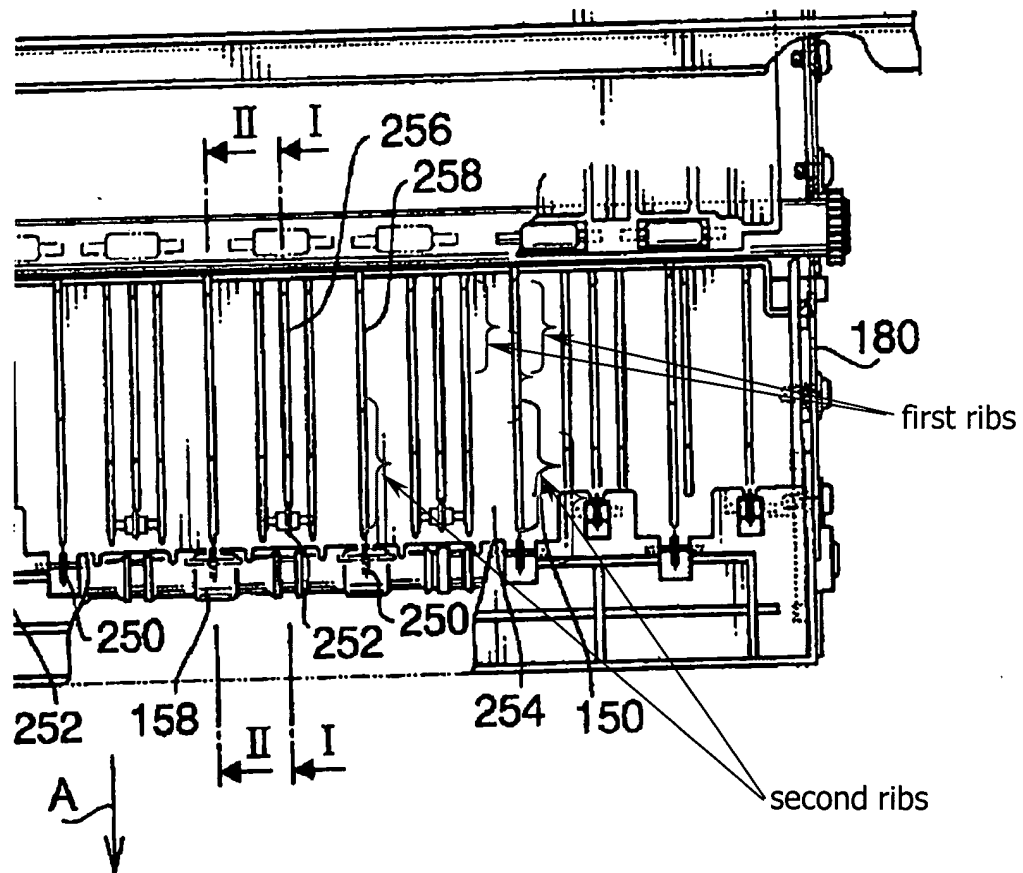
With respect to claim 8, the spacing between the second guide ribs 15 is wider than the spacing between the first guide ribs 11.

With respect to claim 9, Tanaka et al. discloses that the guide ribs 11 and 15 are in the printing region 8a (Tanaka et al., col. 4, lines 6-12). Figure 5 of Tanaka et al. shows that the first guide ribs 11 are located under a front-half swath of the printhead and therefore, in view of Figures 4 and 5 of Tanaka et al. at least part of the guide ribs 15 face a rear-half swath of the printhead.

Art Unit: 2854

5. Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Samoto et al. (US 2003/0043248).

With respect to claim 1, Samoto et al. discloses a paper guide including a plurality of first ribs and second ribs as shown below in the Figure taken from Figure 6 of Samoto et al.:



The first ribs are the first half of all the ribs 256 and 258. The second ribs are the second half of ribs 258. As shown above the interval between the second ribs is wider than the interval between the first ribs. This definition of first and second ribs appears to be a reasonable interpretation of Samoto et al. given applicant's definition of first and second ribs. Additionally, Figure 9 of Samoto et al. shows that the first ribs are located under a front half swath of printhead 112 and

Art Unit: 2854

the second ribs are located under rear half swath of printhead 112. Furthermore each of the second guide ribs is connected to a corresponding first guide rib as shown above.

With respect to claim 2, the first and second guide ribs are linearly connected to one another as shown in Figure 6 of Samoto et al.

With respect to claims 3 and 6, the left bracketed first guide rib in the above Figure is between first guide ribs connected to second guide ribs.

With respect to claim 4, Samoto et al. discloses the paper guide structure as mentioned in the above prior art rejection of claim 1 and further discloses an ink-jet cartridge 122 in printhead 112 and a feed roller 152 as shown in Figures 2 and 3 of Samoto et al. respectively.

With respect to claim 5, Figure 9 of Samoto et al. shows that the first ribs are located under a front half swath of printhead 112 and the second ribs are located under rear half swath of printhead 112. Furthermore each of the second guide ribs is connected to a corresponding first guide rib as shown above.

With respect to claim 7, Samoto et al. discloses the paper guide structure as mentioned in the above prior art rejection of claim 1 and further discloses that the first and second guide ribs are located in first and second regions respectively.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

Art Unit: 2854

having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US 5,515,094) in view of Bae (US 5,775,824).

With respect to claim 4, Tanaka et al. discloses the claimed ink-jet printer except that it is not known to the examiner if he discloses an ink-jet cartridge. Tanaka et al. discloses an ink-jet printhead 3 a feed roller 6. Bae teaches an ink-jet printer using a cartridge and printhead 40 as mentioned in col. 3, lines 4-6 of Bae. It would have been obvious to combine the teaching of Bae with the ink-jet printer disclosed by Tanaka et al. for the advantage of easily replacing the ink cartridge when it runs out of ink.

With respect to claim 5, the guide ribs 15 are linearly connected to the guide ribs 11.

With respect to claim 6 there is a least one guide rib 11 positioned between the guide ribs 11 that are connected to the guide ribs 15.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanemitsu (JP 2002-103706) in view of Bae (US 5,775,824).

Kanemitsu discloses the claimed ink-jet printer except for the ink-jet cartridge. Kanemitsu discloses the paper guide structure as mentioned above with respect to claim 1 and further discloses a feed roller 3 and a printhead 1 as shown in Figure 1 of Kanemitsu. Bae teaches an ink-jet printer using a cartridge and printhead 40 as mentioned in col. 3, lines 4-6 of Bae. It would have been obvious to combine the teaching of Bae with the ink-jet printer disclosed by Kanemitsu for the advantage of easily replacing the ink cartridge when it runs out of

Art Unit: 2854

ink. Furthermore, the ribs 31 are located under a first half of printhead 1 and the ribs 32 are located under a second half of the printhead as shown in Figure 1 of Kanemitsu.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Sugiyama, Yamaguchi et al. (2002/0118266) and Yamaguchi et al. (5,847,719) are cited to show other examples of paper guides with first and second ribs.

Response to Arguments

10. While the rejection of claim 4 based on Kanemitsu is retained, the newly discovered prior art may provide a clearer rejection of the recited claims.

In response to applicant's argument that there is no suggestion to combine the Kanemitsu and Bae references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves *or in the knowledge generally available to one of ordinary skill in the art*. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the knowledge is generally available to one of ordinary skill in the art.

With respect to applicant's arguments regarding claim 7, since Kanemitsu discloses the same structure as that recited in claim 9, the ribs disclosed by Kanemitsu inherently have the flattening ability.

With respect to applicant's arguments regarding claim 9, the examiner disagrees with applicant's narrow definition of the term "corresponds." The examiner believes that the location

Art Unit: 2854


of the ribs under the first-half swath of the printhead or second-half swath of the printhead is enough of a relation between the ribs and printhead to establish a correspondence between the two.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dan Colilla whose telephone number is (571)272-2157. The examiner can normally be reached Mon.-Thur. between 7:30 am and 6:00 pm. Faxes regarding this application can be sent to (703)872 - 9306.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached at (571)272-2168. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

October 21, 2004


Daniel J. Colilla
Primary Examiner
Art Unit 2854